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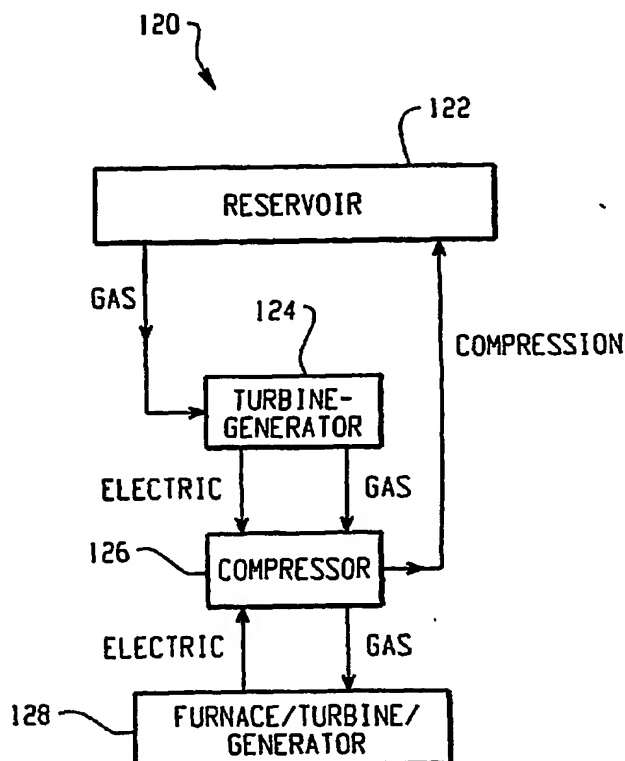
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(54) Title: METHOD AND SYSTEM FOR GENERATING ELECTRICITY UTILIZING NATURALLY OCCURRING GAS



(57) Abstract: A system and method for using natural gas to
generate electricity. Natural gas under pressure is withdrawn
from a well and passed to a turbine. The pressure of the nat-
ural gas acts on a turbine fan that in turn drives a generator to
generate electricity. The natural gas used to drive the turbine
fan suitably is reused to drive another turbine and generator,
thereby producing additional electricity.

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INTERNATIONAL SEARCH REPORT

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PCT/US04/35200

A. CLASSIFICATION OF SUBJECT MATTER

IPC: F03B 13/00(2006.01),13/10(2006.01);H02P 9/04(2006.01)

USPC: 290/43

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 290/43

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,993,913 B2 (KOBAYASHI et al.) 07 February 2006 (07.02.2006), complete document.	1-8
Y. A	US 6,374,591 B1 (JOHNSON et al.) 23 April 2002 (23.04.2002), complete document.	2-4 and 6-8
A	US 6,089,028 A (BOWEN et al.) 18 July 2000 (18.07.2000), complete document.	1-8
A	US 5,457,951 A (JOHNSON et al.) 17 October 1995 (17.10.1995), complete document.	1-8
A	US 4,995,234 A (KOOY et al.) 26 February 1991 (26.02.1991), complete document.	1-8
A	US 4,599,868 A (LUTJENS et al.) 15 July 1986 (15.07.1986), complete document.	1-8
A	US 4,479,350 A (NEWTON et al.) 30 October 1984 (30.10.1984), complete document.	1-8



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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,437,312 A (NEWTON et al.) 20 March 1984 (20.03.1984), complete document.	1-8
A	US 4,372,124 A (NEWTON et al.) 08 February 1983 (08.02.1983), complete document.	1-8
A	US 4,036,028 A (MANDRIN) 19 July 1977 (19.07.1977), complete document.	1-8
A	US 3,892,103 A (ANTONELLI) 01 July 1975 (01.07.1975), complete document.	1-8
A	US 3,726,085 A (ARENSON) 10 April 1973 (10.04.1973), complete document.	1-8
A	US 3,479,832 A (J. A. SARSEN et al.) 25 November 1969 (25.11.1969), complete document.	1-8
A	US 3,183,666 A (R. G. JACKSON) 18 May 1965 (18.05.1965), complete document.	1-8
X, A	US 3,068,659 A (W. H. MARSHALL, JR.) 18 December 1962 (18.12.1962), complete document.	1 and 5
Y, A		2-4 and 6-8
A	US 2,975,607 A (W. W. BODLE) 21 March 1961 (21.03.1961), complete document.	1-8
A	US 2006/0174627 A1 (McQUIGGAN) 10 August 2006 (10.08.2006), complete document.	1-8
A	US 2006/0076076 A1 (DARLING, IV et al.) 13 April 2006 (13.04.2006), complete document.	1-8